



KEMENTERIAN PENDIDIKAN, RISET DAN TEKNOLOGI
POLITEKNIK NEGERI MALANG

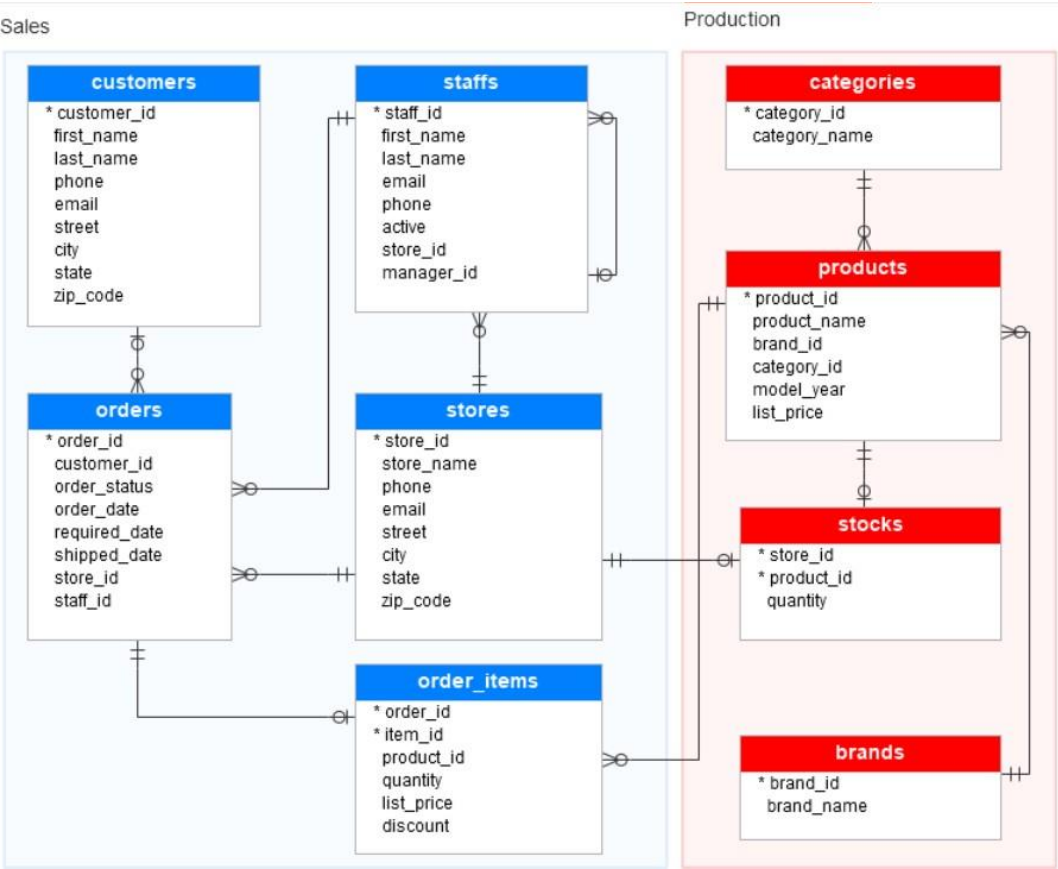
PRODI D-4 TEKNIK INFORMATIKA

UJIAN TENGAH SEMESTER GANJIL

| | | | |
|---------------------------------|--|----------------------------|------------------------|
| Nama Dosen Pengampu | : Dinny Wahyu Widarti, S.Kom., MMSI | Hari | : JUMAT |
| Mata Kuliah | : BASIS DATA LANJUT | Tanggal Pelaksanaan | : 18 OKT 2024 |
| Program Studi | : D-4 Teknik Informatika | Jam Pelaksanaan | : 13.30 – 15.30 |
| Semester/ Tahun Akademik | : 3/ 2024-2025 | Sifat Ujian | : OPEN ALL |

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Siapkan basis data BikeStores berikut:



Berdasarkan database BikeStores.db diatas, buatlah perintah query pada setiap nomor berikut, lalu di capture query dan hasilnya kemudian simpan menjadi 1 file PDF dan beri nama “UTS-BDL-[nimAnda]-[namaAnda].pdf” lalu kirim ke email dinnywidarti@gmail.com sebelum jam 15.31 WIB.

Soal:

1. Tampilkan product_id, product_name, dan model_year, list_price, serta buat alias “Golongan Harga” menggunakan CASE untuk pilihan berikut:
Jika list_price diantara 10 sampai 300 maka “Murah meriah”,
Jika list_price diantara 301 sampai 600 maka “Terjangkau”,
Jika list_price diantara 601 sampai 900 maka “Cukup mahal”,
Selain itu “Sangat mahal”, dari tabel production.products. (menghasilkan 321 baris)
Jawab:

UTS.sql - NANDA\S...(NANDA\DELL (52))* X SQLQuery1pertemu...NANDA\DELL (63))

```
SELECT product_id, product_name, model_year, list_price,
CASE
WHEN list_price BETWEEN 10 AND 300 THEN 'Murah Meriah'
WHEN list_price BETWEEN 301 AND 600 THEN 'Terjangkau'
WHEN list_price BETWEEN 601 AND 900 THEN 'Cukup Mahal'
ELSE 'Sangat Mahal'
END AS "Golongan Harga"
FROM production.products;
```

90 %

Results Messages

| | product_id | product_name | model_year | list_price | Golongan Harga |
|----|------------|---|------------|------------|----------------|
| 1 | 1 | Trek 820 - 2016 | 2016 | 379.99 | Terjangkau |
| 2 | 2 | Ritchey Timberwolf Frameset - 2016 | 2016 | 749.99 | Cukup Mahal |
| 3 | 3 | Surly Wednesday Frameset - 2016 | 2016 | 999.99 | Sangat Mahal |
| 4 | 4 | Trek Fuel EX 8 29 - 2016 | 2016 | 2899.99 | Sangat Mahal |
| 5 | 5 | Heller Shagamaw Frame - 2016 | 2016 | 1320.99 | Sangat Mahal |
| 6 | 6 | Surly Ice Cream Truck Frameset - 2016 | 2016 | 469.99 | Terjangkau |
| 7 | 7 | Trek Slash 8 27.5 - 2016 | 2016 | 3999.99 | Sangat Mahal |
| 8 | 8 | Trek Remedy 29 Carbon Frameset - 2016 | 2016 | 1799.99 | Sangat Mahal |
| 9 | 9 | Trek Conduit+ - 2016 | 2016 | 2999.99 | Sangat Mahal |
| 10 | 10 | Surly Straggler - 2016 | 2016 | 1549.00 | Sangat Mahal |
| 11 | 11 | Surly Straggler 650b - 2016 | 2016 | 1680.99 | Sangat Mahal |
| 12 | 12 | Electra Townie Original 21D - 2016 | 2016 | 549.99 | Terjangkau |
| 13 | 13 | Electra Cruiser 1 (24-Inch) - 2016 | 2016 | 269.99 | Murah Meriah |
| 14 | 14 | Electra Girl's Hawaii 1 (16-inch) - 2015/2... | 2016 | 269.99 | Murah Meriah |
| 15 | 15 | Electra Moto 1 - 2016 | 2016 | 529.99 | Terjangkau |
| 16 | 16 | Electra Townie Original 7D EQ - 2016 | 2016 | 599.99 | Terjangkau |
| 17 | 17 | Pure Cycles Vine 8-Speed - 2016 | 2016 | 429.00 | Terjangkau |

Q... NANDA\SQLXPRESS (16.0 RTM) NANDA\DELL (52) BikeStores 00:00:00 321 rows

2. Tuliskan query SELECT untuk mendapatkan data unik pada kolom customer_id, order_status, shipdate dalam tabel sales.orders. Filter hasil tersebut agar hanya menampilkan order pada bulan Oktober 2017 saja. (menghasilkan 65 baris)

Jawab:

UTS.sql - NANDA\S...(NANDA\DELL (52))* X BDL_Pertemuan4.sq...(NANDA\DELL (56))

```
SELECT DISTINCT customer_id, order_status, shipped_date
FROM sales.orders
WHERE order_date BETWEEN '2017-10-01' AND '2017-10-31';
```

90 %

Results Messages

| | customer_id | order_status | shipped_date |
|----|-------------|--------------|--------------|
| 1 | 19 | 4 | 2017-10-29 |
| 2 | 21 | 3 | NULL |
| 3 | 24 | 4 | 2017-10-04 |
| 4 | 34 | 4 | 2017-10-17 |
| 5 | 41 | 4 | 2017-10-02 |
| 6 | 48 | 4 | 2017-10-26 |
| 7 | 186 | 4 | 2017-10-18 |
| 8 | 192 | 4 | 2017-10-22 |
| 9 | 201 | 4 | 2017-10-24 |
| 10 | 213 | 4 | 2017-10-29 |
| 11 | 216 | 4 | 2017-10-17 |
| 12 | 222 | 4 | 2017-10-29 |
| 13 | 229 | 4 | 2017-10-21 |
| 14 | 269 | 4 | 2017-10-23 |
| 15 | 286 | 4 | 2017-10-04 |
| 16 | 292 | 4 | 2017-10-12 |
| 17 | 318 | 4 | 2017-10-26 |
| 18 | 369 | 4 | 2017-10-16 |
| 19 | 486 | 4 | 2017-10-16 |
| 20 | 508 | 4 | 2017-10-20 |
| 21 | 534 | 4 | 2017-10-06 |
| 22 | 548 | 4 | 2017-10-09 |

Qu... NANDA\SQLXPRESS (16.0 RTM) NANDA\DELL (52) BikeStores 00:00:00 65 rows

3. Tuliskan T-SQL SELECT yang akan menampilkan kelompok customer yang melakukan order. Klausula SELECT harus mencakup kolom customer_id dari tabel sales.orders dan kolom first_name dari tabel sales.customers. Gabungkan kedua kolom tersebut menggunakan INNER JOIN, dan filter hanya order dari staff yang memiliki staff_id sama dengan 2. (menghasilkan 152 baris)

Jawab:

SQLQuery1pertemu...NANDA\DELL (58))UTS.sql - NANDA\S...(NANDA\DELL (52))*

SELECT o.customer_id, c.first_name

FROM sales.orders o

INNER JOIN sales.customers c

ON o.customer_id = c.customer_id

WHERE o.staff_id = 2

GROUP BY o.customer_id, c.first_name;

90 %

ResultsMessages

| | customer_id | first_name |
|----|-------------|------------|
| 1 | 2 | Kasha |
| 2 | 3 | Tameka |
| 3 | 5 | Charolette |
| 4 | 24 | Corene |
| 5 | 30 | Jamaal |
| 6 | 31 | Williemae |
| 7 | 32 | Araceli |
| 8 | 33 | Deloris |
| 9 | 40 | Ronna |
| 10 | 46 | Monika |
| 11 | 47 | Bridgette |
| 12 | 53 | Saturnina |
| 13 | 60 | Neil |
| 14 | 78 | Chi |
| 15 | 81 | Zina |
| 16 | 82 | Lizzie |
| 17 | 89 | Arvilla |
| 18 | 91 | Marvin |
| 19 | 97 | Louanne |
| 20 | 104 | Katharina |

Q...

NANDA\SQLEXPRESS (16.0 RTM)

NANDA\DELL (52)

BikeStores

00:00:00

152 rows

4. Buatlah sub query yang hasilnya untuk menampilkan kolom order_id dari produk yang terjual dalam jumlah lebih dari 1 kali dari table sales.order_items. Kemudian buat outer query-nya berdasarkan hasil tersebut untuk mengambil kolom product_id dan product_name dari tabel production.products. (menghasilkan 261 baris)
- Jawab:

SQLQuery1pertemu...NANDA\DELL (58))UTS.sql - NANDA\S...(NANDA\DELL (52))*

SELECT product_id, product_name

FROM production.products

WHERE product_id IN (

SELECT order_id

FROM sales.order_items

WHERE quantity > 1);

90 %

ResultsMessages

| | product_id | product_name |
|----|------------|---|
| 1 | 1 | Trek 820 - 2016 |
| 2 | 2 | Ritchey Timberwolf Frameset - 2016 |
| 3 | 4 | Trek Fuel EX 8 29 - 2016 |
| 4 | 5 | Heller Shagamaw Frame - 2016 |
| 5 | 6 | Surly Ice Cream Truck Frameset - 2016 |
| 6 | 7 | Trek Slash 8 27.5 - 2016 |
| 7 | 8 | Trek Remedy 29 Carbon Frameset - 2016 |
| 8 | 9 | Trek Conduit+ - 2016 |
| 9 | 11 | Surly Straggler 650b - 2016 |
| 10 | 12 | Electra Townie Original 21D - 2016 |
| 11 | 13 | Electra Cruiser 1 (24-Inch) - 2016 |
| 12 | 15 | Electra Moto 1 - 2016 |
| 13 | 16 | Electra Townie Original 7D EQ - 2016 |
| 14 | 17 | Pure Cycles Vine 8-Speed - 2016 |
| 15 | 18 | Pure Cycles Western 3-Speed - Women... |
| 16 | 19 | Pure Cycles William 3-Speed - 2016 |
| 17 | 20 | Electra Townie Original 7D EQ - Women... |
| 18 | 22 | Electra Girl's Hawaii 1 (16-inch) - 2015/2... |
| 19 | 23 | Electra Girl's Hawaii 1 (20-inch) - 2015/2... |
| 20 | 24 | Electra Townie Original 21D - 2016 |

Q...

NANDA\SQLEXPRESS (16.0 RTM)

NANDA\DELL (52)

BikeStores

00:00:00

261 rows

5. Tampilkan kolom item_id, customer_id, totalSalesAmount (list_price * quantity), dan perangkatin. Buatlah perangkatin menggunakan ROW_NUMBER untuk hasil list_price kali quantity dari table sales.order_items, dipartisi berdasarkan customer_id, berdasarkan hasil JOIN table sales.orders dengan sales.order_items. Diharapkan hasilnya seperti berikut:

| | item_id | customer_id | totSalesAmount | ranking |
|----|---------|-------------|----------------|---------|
| 1 | 2 | 1 | 6499.99 | 1 |
| 2 | 1 | 1 | 5999.98 | 2 |
| 3 | 1 | 1 | 4999.99 | 3 |
| 4 | 4 | 1 | 3798.00 | 4 |
| 5 | 5 | 1 | 3199.99 | 5 |
| 6 | 4 | 1 | 3098.00 | 6 |
| 7 | 1 | 1 | 1099.98 | 7 |
| 8 | 2 | 1 | 639.98 | 8 |
| 9 | 2 | 1 | 539.98 | 9 |
| 10 | 3 | 1 | 469.99 | 10 |
| 11 | 3 | 1 | 299.99 | 11 |
| 12 | 4 | 2 | 10999.98 | 1 |
| 13 | 1 | 2 | 2599.99 | 2 |
| 14 | 5 | 2 | 1559.99 | 3 |
| 15 | 1 | 2 | 1499.98 | 4 |
| 16 | 3 | 2 | 1059.98 | 5 |
| 17 | 1 | 2 | 999.99 | 6 |

DESKTOP-SE9QG1Q\dinnyd... BikeStores 00:00:00 4,722 rows

Jawab:

SQLQuery1pertemu...NANDA\DELL (58) UTS.sql - NANDA\S...(NANDA\DELL (52))*

```
SELECT oi.item_id,o.customer_id,(oi.list_price * oi.quantity)
AS totalSalesAmount,ROW_NUMBER() OVER
ORDER BY (oi.list_price * oi.quantity)
FROM sales.order_items oi
JOIN sales.orders o ON oi.order_id = o.order_id;
```

90 %

Results Messages

| | item_id | customer_id | totalSalesAmount | ranking |
|----|---------|-------------|------------------|---------|
| 3 | 1 | 1 | 4999.99 | 3 |
| 4 | 4 | 1 | 3798.00 | 4 |
| 5 | 5 | 1 | 3199.99 | 5 |
| 6 | 4 | 1 | 3098.00 | 6 |
| 7 | 1 | 1 | 1099.98 | 7 |
| 8 | 2 | 1 | 639.98 | 8 |
| 9 | 2 | 1 | 539.98 | 9 |
| 10 | 3 | 1 | 469.99 | 10 |
| 11 | 3 | 1 | 299.99 | 11 |
| 12 | 4 | 2 | 10999.98 | 1 |
| 13 | 1 | 2 | 2599.99 | 2 |
| 14 | 5 | 2 | 1559.99 | 3 |
| 15 | 1 | 2 | 1499.98 | 4 |
| 16 | 3 | 2 | 1059.98 | 5 |
| 17 | 1 | 2 | 999.99 | 6 |
| 18 | 3 | 2 | 979.98 | 7 |
| 19 | 4 | 2 | 693.98 | 8 |
| 20 | 2 | 2 | 659.99 | 9 |
| 21 | 2 | 2 | 599.99 | 10 |
| 22 | 3 | 3 | 11999.98 | 1 |
| 23 | 2 | 3 | 4999.99 | 2 |

Q

NANDA\SQLEXPRESS (16.0 RTM) NANDA\DELL (52) BikeStores 00:00:00 4,722 rows

6. Berdasarkan soal nomor 5 buatlah perangkingan menggunakan NTILE dalam 4 kelompok peringkat. Pastikan hasilnya seperti berikut ini:

| | item_id | customer_id | totalsalesamount | rangking |
|----|---------|-------------|------------------|----------|
| 1 | 2 | 1 | 6499.99 | 1 |
| 2 | 1 | 1 | 5999.98 | 1 |
| 3 | 1 | 1 | 4999.99 | 1 |
| 4 | 4 | 1 | 3798.00 | 1 |
| 5 | 5 | 1 | 3199.99 | 2 |
| 6 | 4 | 1 | 3098.00 | 2 |
| 7 | 1 | 1 | 1099.98 | 2 |
| 8 | 2 | 1 | 639.98 | 2 |
| 9 | 2 | 1 | 539.98 | 3 |
| 10 | 3 | 1 | 469.99 | 3 |
| 11 | 3 | 1 | 299.99 | 3 |
| 12 | 4 | 2 | 10999.98 | 1 |
| 13 | 1 | 2 | 2599.99 | 1 |
| 14 | 5 | 2 | 1559.99 | 1 |
| 15 | 1 | 2 | 1499.98 | 1 |
| 16 | 3 | 2 | 1059.98 | 2 |
| 17 | 1 | 2 | 999.99 | 2 |

DESKTOP-SE9QG1Q\dinnyd... BikeStores 00:00:00 4,722 rows

Jawab:

sales.order_items. Filter hasilnya menjadi grup baris data hanya untuk pesanan di tahun 2018! Diharapkan hasilnya seperti berikut ini:

| | order_id | customer_id | totsalesamount |
|----|----------|-------------|----------------|
| 1 | 636 | 532 | 659.98 |
| 2 | 637 | 512 | 3899.97 |
| 3 | 638 | 1302 | 7551.96 |
| 4 | 639 | 550 | 11899.95 |
| 5 | 640 | 1093 | 3803.92 |
| 6 | 641 | 673 | 4519.97 |
| 7 | 642 | 847 | 899.98 |
| 8 | 643 | 901 | 749.99 |
| 9 | 644 | 439 | 2999.99 |
| 10 | 645 | 1199 | 16509.92 |
| 11 | 646 | 975 | 4809.95 |
| 12 | 647 | 283 | 1289.97 |

Jawab:

SQLQuery1pertemu...NANDA\DELL (58)) UTS.sql - NANDA\S...(NANDA\DELL (52))*

```
SELECT o.order_id, o.customer_id,
       SUM(oi.quantity * oi.list_price) AS total_sales_amount
FROM sales.orders o
JOIN sales.order_items oi ON o.order_id = oi.order_id
WHERE YEAR(o.order_date) = 2018
GROUP BY o.order_id, o.customer_id;
```

82 %

Results Messages

| | order_id | customer_id | total_sales_amount |
|----|----------|-------------|--------------------|
| 1 | 1324 | 862 | 7150.95 |
| 2 | 1325 | 68 | 9399.96 |
| 3 | 1326 | 567 | 5999.96 |
| 4 | 1327 | 1026 | 8819.93 |
| 5 | 1328 | 1083 | 4259.94 |
| 6 | 1329 | 443 | 5126.94 |
| 7 | 1330 | 761 | 3959.92 |
| 8 | 1331 | 1122 | 7369.95 |
| 9 | 1332 | 256 | 2909.94 |
| 10 | 1333 | 203 | 13157.92 |
| 11 | 1334 | 425 | 21789.92 |
| 12 | 1335 | 955 | 4499.98 |
| 13 | 1336 | 904 | 15839.93 |
| 14 | 1337 | 970 | 4999.99 |
| 15 | 1338 | 905 | 12999.98 |
| 16 | 1339 | 580 | 3199.99 |
| 17 | 1340 | 1066 | 4719.95 |
| 18 | 1341 | 1258 | 14801.92 |
| 19 | 1342 | 1393 | 1769.98 |

Q... NANDA\SQLEXPRESS (16.0 RTM) NANDA\DELL (52) BikeStores 00:00:00 292 rows

9. Tuliskan pernyataan SELECT yang akan menampilkan kelompok baris berdasarkan kolom customer_id dan akan dihitung oleh kolom ordermonth mewakili bulan order berdasarkan kolom order_date dari tabel sales.orders. Kemudian filter hasilnya untuk memasukkan hanya order dari staff yang sama dengan 9! (menghasilkan 85 baris)

Jawab:

SQLQuery1pertemu...NANDA\DELL (58)) UTS.sql - NANDA\S...(NANDA\DELL (52))*

```
SELECT o.customer_id, MONTH(o.order_date) AS ordermonth,
       COUNT(*) AS order_count
FROM sales.orders o
WHERE o.staff_id = 9
GROUP BY o.customer_id, MONTH(o.order_date)
ORDER BY o.customer_id, ordermonth;
```

90 %

Results Messages

| | customer_id | ordermonth | order_count |
|----|-------------|------------|-------------|
| 1 | 13 | 4 | 2 |
| 2 | 13 | 5 | 1 |
| 3 | 14 | 4 | 1 |
| 4 | 20 | 2 | 1 |
| 5 | 21 | 10 | 1 |
| 6 | 50 | 2 | 1 |
| 7 | 56 | 3 | 1 |
| 8 | 56 | 4 | 1 |
| 9 | 61 | 4 | 1 |
| 10 | 61 | 8 | 1 |
| 11 | 61 | 11 | 1 |
| 12 | 64 | 1 | 1 |
| 13 | 64 | 11 | 1 |
| 14 | 68 | 4 | 1 |
| 15 | 77 | 4 | 1 |
| 16 | 77 | 9 | 1 |

Q... NANDA\SQLEXPRESS (16.0 RTM) NANDA\DELL (52) BikeStores 00:00:00 85 rows

10. Buatlah query berikut terlebih dahulu

```
SELECT o.customer_id
FROM sales.orders AS o
INNER JOIN sales.order_items AS i
ON i.order_id = o.order_id
GROUP BY o.customer_id
HAVING COUNT(DISTINCT i.product_id) > 10;
```

71 %

Results Messages

| | customer_id |
|---|-------------|
| 1 | 1 |
| 2 | 3 |
| 3 | 6 |
| 4 | 10 |
| 5 | 16 |

Qu... DESKTOP-SE9QG1Q\SQLEXPRESS... DESKTOP-SE9QG1Q\diinyd... BikeStores 00:00:00 5 rows

Buatlah sebuah statement SELECT yang menampilkan kolom 'customer_id' dari tabel 'sales.orders'. Saring hasilnya sehingga yang tampil hanyalah pelanggan yang berasal dari state = TX kecuali SEMUA pelanggan yang muncul pada hasil query diatas. (menghasilkan 142 baris)

Jawab:

The screenshot displays the SQL Server Enterprise Manager interface. At the top, the 'Query Editor' window is active, showing a SQL query that filters for customers in Texas (TX) who have placed more than 10 orders. The query is as follows:

```
SELECT DISTINCT o.customer_id
FROM sales.orders AS o
INNER JOIN sales.customers AS c
ON o.customer_id = c.customer_id
WHERE c.state = 'TX'
AND o.customer_id NOT IN (
    SELECT o.customer_id
    FROM sales.orders AS o
    INNER JOIN sales.order_items AS i
    ON i.order_id = o.order_id
    GROUP BY o.customer_id
    HAVING COUNT(DISTINCT i.product_id) > 10)
ORDER BY o.customer_id;
```

Below the query editor, the 'Results' pane shows the output of the query. It contains a table with two columns: 'customer_id' and an unlabeled column with row numbers. The results are as follows:

| | customer_id |
|----|-------------|
| 1 | 13 |
| 2 | 14 |
| 3 | 20 |
| 4 | 21 |
| 5 | 43 |
| 6 | 50 |
| 7 | 56 |
| 8 | 61 |
| 9 | 64 |
| 10 | 66 |
| 11 | 68 |
| 12 | 77 |
| 13 | 116 |
| 14 | 117 |

The status bar at the bottom indicates the connection is to 'NANDA\SQLEXPRESS (16.0 RTM)', the database is 'NANDA\DELL (52)', and there are 142 rows in the result set.